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EXAMINER

QUIETT, CARRAMAH J

ART UNIT	PAPER NUMBER
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2622

NOTIFICATION DATE	DELIVERY MODE
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12/29/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/822,000	Applicant(s) SATO, GENTA	
	Examiner Carramah J. Quiett	Art Unit 2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 September 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission/amendment(s) filed on 09/26/2008 has been entered made of record. Claims 1-35 are pending.

Response to Arguments

2. Applicant's arguments with respect to claims 1-35 have been considered but are moot in view of the new ground(s) of rejection.

Information Disclosure Statement

3. The information disclosure statements (IDS), filed on 07/07/2008, has been placed in the application file, and the information referred to therein has been considered as to the merits.

Claim Rejections - 35 USC § 103

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. **Claims 1-7, 11-12, 16-20, 22, 26-28, and 32-35** are rejected under 35 U.S.C. 103(a) as being unpatentable over Taskeshita (US 7,084,907) in view of Kehtarnavaz et al. (US 7,184,080).

For **claim 1**, Taskeshita teaches an automatic white balance adjusting method, comprising:

obtaining RGB signals from a color image pick up element (color sensor – col. 6, lines 16-50);

acquiring color information (160 areas of color signals obtained by dividing the image capturing surface into 160 portions) for each of a plurality of division areas in which one screen (surface of a single 2-dimensional image capturing element) of the color image pick up element is divided into a plurality of areas, based on said RGB signals within each division area (col. 6, lines 34-50);

grouping points (160 sets of chromaticity data) which represent the color information for said plurality of division areas in the color space which is represented by R/G and B/G (col. 6, lines 51-65), based on distance between said points (col. 6, line 66 – col. 7, line 9);

counting a number of the points within each of the groups and obtaining specific groups (an area with the largest number of sets of chromaticity data) from among the groups based on said number of the points (col. 9, lines 51-67; col. 10, lines 1-27);

obtaining R/G gains and B/G gains for making representative points which represent each of the specific groups *an achromatic color* and calculating white balance correction values based on the R/G gains and the B/G gains (col. 9, lines 51-67; col. 10, lines 1-67); and

adjusting the white balance of said RGB signals based on said white balance correction values (col. 9, lines 51-67; col. 10, lines 1-67).

However, Takeshita does not expressly teach obtaining R/G gains and B/G gains for making representative points which represent each of the specific groups *the neutral gray (N*

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gray) and calculating white balance correction values based on the R/G gains and the B/G gains (*in regards to N gray*); and

In a similar field of endeavor, Kehtarnavaz teaches obtaining R/G gains and B/G gains for making representative points which represent each of the specific groups the neutral gray (N gray) and calculating white balance correction values based on the R/G gains and the B/G gains (*in regards to N gray*). Please read Kehtarnavaz, col. 2, lines 33-54 and col. 6, line 61 – col. 7, line 45. In light of the teaching of Kehtarnavaz, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the counting method of Takeshita with the N gray as recited in claim 1 in order to improve/expand the white balance capabilities and functioning as well as the exposure in a digital camera (Kehtarnavaz, col. 3, line 63-5).

For **claim 2**, Takeshita, as modified by Kehtarnavaz, teaches the automatic white balance adjusting method according to claim 1, wherein said step of acquiring color information of said division area comprises integrating the RGB signals within said division area for each color to obtain an integrated value for each color, and acquiring R/G ratios and B/G ratios of said integrated value for each color and having the ratios R/G and B/G as the color information of said division area. Please read Takeshita, col. 10, lines 1-67 and Kehtarnavaz, col. col. 2, lines 33-54; col. 3, lines 39-62 and col. 6, line 61 – col. 7, line 45.

For **claim 3**, Takeshita, as modified by Kehtarnavaz, teaches the automatic white balance adjusting method according to claim 2, wherein said step of grouping comprises grouping the color information for said adjacent division areas in the same group when said acquired distance is less than or equal to a predetermined value (Takeshita col. 6, line 66 – col. 7, line 9; col. 10, lines 1-67).

For **claim 4**, Takeshita, as modified by Kehtarnavaz, teaches the automatic white balance adjusting method according to claim 1, wherein said step of obtaining specific groups comprises obtaining a group from among the grouped points which represent color information, as said specific group, in which the number of the points which represent color information within each of the groups into which the color information is grouped is greater than or equal to a predetermined number (Takeshita, col. 9, lines 51-67; col. 10, lines 1-27).

For **claim 5**, Takeshita, as modified by Kehtarnavaz,, teaches the automatic white balance adjusting method according to claim 4, wherein said step of calculating the white balance correction values comprises a step of calculating said white balance correction values by adding the R/G gain and the B/G gain for each of the specific groups that is weighted by the number of points within each of the specific groups, when there are a plurality of said specific groups (Takeshita, col. 10, lines 1-27; Kehtarnavaz col. 6, line 66 – col. 7, line 9).

For **claim 6**, Takeshita, as modified by Kehtarnavaz, teaches the automatic white balance adjusting method according to claim 1, wherein said step of obtaining the specific group from among the grouped points which represent color information comprises obtaining, as said specific group, a group having the largest number of points which represent color information within each of the groups into which the color information is grouped (Takeshita, col. 10, lines 1-27; Kehtarnavaz col. 6, line 66 – col. 7, line 9).

For **claim 7**, Takeshita, as modified by Kehtarnavaz, teaches the automatic white balance adjusting method according to claim 6, wherein said step of calculating the white balance correction value comprises calculating the white balance correction values to make the representative points which represent color information within said group having the largest

number of point which represent color information the target color information (Takeshita, col. 10, lines 1-27; Kehtarnavaz col. 6, line 66 – col. 7, line 9).

Claim 11-12 are apparatus claims corresponding to method claims 1-2, respectively. Therefore, claims 11-12 are analyzed and rejected as previously discussed with respect to claims 1-2, respectively.

For **claim 16**, Takeshita, as modified by Kehtarnavaz, discloses the apparatus of claim 11, wherein said specific group of points which represent color information from among grouped points which represent color information obtained in said calculating device is the group in which the number of counted points which represent color information within each of the groups is greater than or equal to a predetermined number (Takeshita, col. 9, lines 51-67; col. 10, lines 1-27).

For **claim 17**, Takeshita, as modified by Kehtarnavaz, discloses the apparatus of claim 11, wherein said specific group of points which represent color information from among grouped points which represent color information obtained in said calculating device is the group having the largest number of points which represent color information among the groups (Takeshita, col. 10, lines 1-27; Kehtarnavaz col. 6, line 66 – col. 7, line 9).

For **claim 18**, Takeshita, as modified by Kehtarnavaz, discloses the apparatus of claim 16, wherein said calculating device calculates said white balance correction values based on the points which represent color information contained in said specific group of points which represent color information from among grouped points which represent color information wherein target color information comprises the representative color information representing the

points which represent color information within each group (Takeshita, col. 10, lines 1-27; Kehtarnavaz col. 6, line 66 – col. 7, line 9).

For **claim 19**, Takeshita, as modified by Kehtarnavaz, discloses the apparatus of claim 17, wherein said calculating device calculates said white balance correction values based on the points which represent color information contained in said specific group of points which represent color information from among grouped points which represent color information wherein the target color information comprises the representative color information within said group having the largest number of points which represent color information (Takeshita, col. 10, lines 1-27; Kehtarnavaz col. 6, line 66 – col. 7, line 9).

For **claim 20**, Takeshita, as modified by Kehtarnavaz, discloses the apparatus of claim 11, wherein said calculating device calculates said white balance correction values by adding the calculated white balance correction values for each group that is weighted by the number of points which represent color information within each group, when there are a plurality of said specific groups (Takeshita, col. 10, lines 1-27; Kehtarnavaz col. 6, line 66 – col. 7, line 9).

For **claim 22**, Takeshita, as modified by Kehtarnavaz, teaches the automatic white balance adjusting method according to claim 1, further comprising:

calculating white balance fine adjustment values (Takeshita, col. 10, lines 1-27); and
multiplying the RGB signals by the white balance fine adjustment values (Takeshita, col. 10, lines 1-27);

wherein upon said acquiring the color information for each of the plurality of division areas, acquiring the color information for each of the plurality of division areas is based on the

RGB signals multiplied by the white balance fine adjustment values (Takeshita, col. 10, lines 1-27; col. 11, lines 51-65).

For **claim 26**, Takeshita, as modified by Kehtarnavaz, teaches the automatic white balance adjusting method according to claim 1, further comprising:

discriminating light source species at the actual photographing based on the RGB signals (Takeshita, col. 7, lines 10-25); and

making white balance adjustment according to the discriminated light source species (Takeshita, col. 9, lines 51-67; col. 10, lines 1-27).

For **claim 27**, Takeshita, as modified by Kehtarnavaz, teaches the automatic white balance adjusting method according to claim 26, wherein said discriminating light source species at the actual photographing, discriminating the light source species by obtaining the light source species having the color information to which the points which represent color information representing the group having the maximum number of the color information is closest among the color information of light source species (Takeshita, col. 9, lines 51-67; col. 10, lines 1-27; col. 10, line 49 – col. 11, line 59).

For **claim 34**, Takeshita, as modified by Kehtarnavaz, teaches the automatic white balance adjusting method according to claim 1, wherein said representative point is the point in the center of the specific group in the color space or average point of the specific group (Takeshita, col. 10, lines 1-27; Kehtarnavaz col. 6, line 66 – col. 7, line 9).

Claims 28 and 32-34 are apparatus claims corresponding to method claims 22, 26-27, and 35, respectively. Therefore, claims 28 and 32-34 are analyzed and rejected as previously discussed with respect to claims 22, 26-27, and 35, respectively.

6. **Claims 8-9 and 14-15** are rejected under 35 U.S.C. 103(a) as being unpatentable over in Taskeshita (US 7,084,907) in view of Kehtarnavaz et al. (US 7,184,080) as applied to claims 1 and 11 above, and further in view of Ishii et al. (US 7,009,640).

For **claim 8**, Takeshita, as modified by Kehtarnavaz, teaches the automatic white balance adjusting method according to claim 1. However, Takeshita, as modified by Kehtarnavaz, do not expressly teach wherein said distance is calculated according to the following formula:

$$D = \sqrt{\left\{ \left(R_1 / G_1 - R_2 / G_2 \right)^2 + \left(B_1 / G_1 - B_2 / G_2 \right)^2 \right\}}$$

wherein R_1/G_1 and B_1/G_1 , represent a first piece of color information representing a first point in the color space;

wherein R_2/G_2 and B_2/G_2 represent a second piece of color information representing a second point in the color space; and

wherein D is the distance in the points which represent color information between said adjacent division areas in the color space represented by R/G and B/G.

In a similar field of endeavor, Ishii teaches wherein said distance is calculated according to the following formula: $D = \sqrt{\left\{ \left(R_1 / G_1 - R_2 / G_2 \right)^2 + \left(B_1 / G_1 - B_2 / G_2 \right)^2 \right\}}$ wherein R_1/G_1 and B_1/G_1 , represent a first piece of color information representing a first point in the color space; wherein R_2/G_2 and B_2/G_2 represent a second piece of color information representing a second point in the color space; and wherein D is the distance in the points which represent color information between said adjacent division areas in the color space represented by R/G and B/G. Please read Ishii, col. 21, lines 3-40. In light of the teaching of Ishii, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of

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Takeshita, as modified by Kehtarnavaz, with the white balance adjusting method as recited in claim 8 in order to improve the reproduction of colors in high precision without having characteristic information of the photographed subject in advance (Ishii, col. 3, lines 5-27).

For **claim 9**, Takeshita, as modified by Kehtarnavaz, teaches the automatic white balance adjusting method according to claim 1. However, Takeshita, as modified by Kehtarnavaz, do not teach wherein said distance is calculated according to the following formula:

$$D^2 = (R_1 / G_1 - R_2 / G_2)^2 + (B_1 / G_1 - B_2 / G_2)^2$$

wherein R_1/G_1 and B_1/G_1 , represent a first piece of color information representing a first point in the color space;

wherein R_2/G_2 and B_2/G_2 represent a second piece of color information representing a second point in the color space; and

wherein D is the distance in the points which represent color information between said adjacent division areas in the color space represented by R/G and B/G.

In a similar field of endeavor, Ishii teaches wherein said distance is calculated according to the following formula: $D^2 = (R_1 / G_1 - R_2 / G_2)^2 + (B_1 / G_1 - B_2 / G_2)^2$ wherein R_1/G_1 and B_1/G_1 , represent a first piece of color information representing a first point in the color space; wherein R_2/G_2 and B_2/G_2 represent a second piece of color information representing a second point in the color space; and wherein D is the distance in the points which represent color information between said adjacent division areas in the color space represented by R/G and B/G. Please read Ishii, col. 21, lines 3-40. In light of the teaching of Ishii, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Takeshita, as modified by Kehtarnavaz, with the white balance adjusting method as recited in claim 9 in order

to improve the reproduction of colors in high precision without having characteristic information of the photographed subject in advance (Ishii, col. 3, lines 5-27).

For **claim 13**, Takeshita, as modified by Kehtarnavaz, discloses the apparatus of claim 11 and groups the points which represent color information for said division areas in the same group when said acquired distance is less than or equal to a predetermined value Takeshita, col. 10, lines 1-27). However, Takeshita, as modified by Kehtarnavaz, do not expressly teach wherein the grouping device comprises: a third calculating device that calculates distance in the points which represent color information between said division areas on a color space represented by R/G and B/G.

In a similar field of endeavor, Ishii teaches wherein the grouping device comprises: a third calculating device (Ishii, ref. 824) that calculates distance in the points which represent color information between said division areas on a color space represented by R/G and B/G (Ishii, col. 21, lines 3-40). In light of the teaching of Ishii, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Takeshita, as modified by Kehtarnavaz, with the white balance adjusting method as recited in claim 13 in order to improve the reproduction of colors in high precision without having characteristic information of the photographed subject in advance (Ishii, col. 3, lines 5-27).

Claims 14-15 are apparatus claims corresponding to method claims 8-9, respectively. Therefore, claims 14-15 are analyzed and rejected as previously discussed with respect to claims 8-9, respectively.

7. **Claims 10 and 21** are rejected under 35 U.S.C. 103(a) as being unpatentable over Taskeshita (US 7,084,907) in view of Kehtarnavaz et al. (US 7,184,080) as applied to claims 5 and 20 above, and further in view of Hubina et al. (US 6,876,384).

For **claim 10**, Takeshita, as modified by Kehtarnavaz, teaches the automatic white balance adjusting method according to claim 5. However, Takeshita, as modified by Kehtarnavaz, do not expressly teach wherein said white balance correction values are calculated according to the following formulas: $Gr = \sum Gri \times (Ni / \sum Ni)$, $Gb = \sum Gbi \times (Ni / \sum Ni)$ wherein Gr is an R/G gain and Gb is an B/G gain; wherein N is the number of the points color information within each specific group; and wherein i is the range of summation representing a number of the specific groups.

In a similar field of endeavor, Hubina teaches an automatic white balance adjusting method wherein said white balance correction values are calculated according to the following formulas: wherein said white balance correction values are calculated according to the following formulas: $Gr = \sum Gri \times (Ni / \sum Ni)$, $Gb = \sum Gbi \times (Ni / \sum Ni)$ wherein Gr is an R/G gain and Gb is an B/G gain; wherein N is the number of the points color information within each specific group; and wherein i is the range of summation representing a number of the specific groups. Please read col. 14, lines 21-67. In light of the teaching of Hubina, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Takeshita, as modified by Kehtarnavaz, with the white balance adjusting method as recited in claim 10. This modification provides a more accurate representation of the colors in an imaged object (Hubina, col. 2, lines 5-12).

Claim 21 is an apparatus claim corresponding to method claim 10. Therefore, claim 21 is analyzed and rejected as previously discussed with respect to claim 10.

8. **Claims 23 and 29** are rejected under 35 U.S.C. 103(a) as being unpatentable over Taskeshita (US 7,084,907) in view of Kehtarnavaz et al. (US 7,184,080) as applied to claims 1 and 11 above, and further in view of Higuchi (US 7,151,563).

For **claim 23**, Ishii, as modified by Takeshita, teaches the automatic white balance adjusting method according to claim 1, further comprising:

calculating white balance fine adjustment values (Takeshita, col. 10, lines 1-27; Kehtarnavaz col. 6, line 66 – col. 7, line 9);

However, Takeshita, as modified by Kehtarnavaz, do not expressly teach discriminating whether the white balance adjusting mode is the manual white balance adjusting mode or the automatic white balance adjusting mode; and discriminating the white balance adjusting mode as the manual white balance adjusting mode.

In a similar field of endeavor, Higuchi teaches an automatic white balancing method comprising discriminating whether the white balance adjusting mode is the manual white balance adjusting mode or the automatic white balance adjusting mode; and discriminating the white balance adjusting mode as the manual white balance adjusting mode. Please read col. 5, line 64 – col. 6, line 13. In light of the teaching of Higuchi, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Takeshita, as modified by Kehtarnavaz, with the white balance adjusting method as recited in claim 23 in

order to provide white balance adjustment (manually or automatically) regardless of the imaging condition.

Claim 29 is a method claim corresponding to method claim 23. Therefore, claim 29 is analyzed and rejected as previously discussed with respect to claim 23.

9. **Claims 24 and 30** are rejected under 35 U.S.C. 103(a) as being unpatentable over Taskeshita (US 7,084,907) in view of Kehtarnavaz et al. (US 7,184,080) as applied to claims 22 and 28 above, and further in view of Takemoto (US 7,081,918).

For **claim 24**, Takeshita, as modified by Kehtarnavaz, teaches the automatic white balance adjusting method according to claim 22, further comprising:

obtaining RGB signals from a *gray* chart under an adjusted light source corresponding to a predetermined light source species (Kehtarnavaz col. 5, lines 24-32; col. 6, line 66 – col. 7, line 9);

making white balance adjustment by multiplying the RGB signals obtained by photographing the color chart by preset white balance correction values corresponding to the predetermined light source species (Takeshita, col. 10, lines 1-27);

calculating average integrated values for the RGB signals obtained by photographing the color chart over one full screen after the white balance adjustment (Takeshita, col. 10, lines 1-27; Kehtarnavaz, col. 2, lines 39-62; col. 6, line 66 – col. 7, line 9); and

calculating the white balance fine adjustment values, wherein the white balance fine adjustment values are ratios of the calculated average integrated values to target average

integrated values corresponding to a predetermined light source species (Takeshita col. 9, lines 51-67; col. 10, lines 1-27).

However, Takeshita, as modified by Kehtarnavaz, do not expressly teach a photographing a gray chart.

In a similar field of endeavor, Takemoto teaches obtaining RGB signals by photographing a gray chart under an adjusted light source corresponding to a predetermined light source species (col. 17, lines 28-41). In light of the teaching of Takemoto, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Takeshita, as modified by Kehtarnavaz, by photographing a gray chart as recited in claim 24 in order to generate a model tone characteristic profile thereby creating a high-quality reproduce image (Takemoto, col. 4, lines 3-14).

Claim 30 is an apparatus claim corresponding to method claim 24. Therefore, claim 30 is analyzed and rejected as previously discussed with respect to claim 24.

10. **Claims 25 and 31** are rejected under 35 U.S.C. 103(a) as being unpatentable over Taskeshita (US 7,084,907) in view of Kehtarnavaz et al. (US 7,184,080) and Higuchi (US 7,151,563) as applied to claims 23 and 29 above, and further in view of Takemoto (US 7,081,918).

Claim 25 is a method claim corresponding to method claim 24. Therefore, claim 25 is analyzed and rejected as previously discussed with respect to claim 24.

Claim 31 is an apparatus claim corresponding to method claim 24. Therefore, claim 31 is analyzed and rejected as previously discussed with respect to claim 24.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carramah J. Quiett whose telephone number is (571)272-7316. The examiner can normally be reached on 8:00-5:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, NgocYen Vu can be reached on (571) 272-7320. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/C. J. Q./
Examiner, Art Unit 2622
December 15, 2008

*/Ngoc-Yen T. VU/
Supervisory Patent Examiner, Art Unit 2622*